Cultivating Audiation Through Holistic Early Learning: Attainable and Sustainable Growth for Music Education

John L. Vitale, Nipissing University

Published online: July 27, 2015


To cite this article: Vitale, J. L. (2015). Cultivating audiation through holistic early learning: Attainable and sustainable growth for music education. The International Journal of Holistic Early Learning and Development, 2, 34-44.
Cultivating Audiation Through Holistic Early Learning: Attainable and Sustainable Growth for Music Education

John L. Vitale
Nipissing University

Abstract

As a subject of study in the public school system, music has consistently endured budget cuts and marginalization within the curriculum (Jorgensen, 2003; Pio, 2007). With extensive experience as a music educator at multiple levels, I argue that the cultivation of audiation through holistic early learning will foster attainable and sustainable growth for music education. In the spirit of realizing attainable and sustainable growth for music education, this paper will examine and discuss three principal points: (a) that creativity should be a critically important part of all education; (b) that a well-balanced approach to creativity involves a multisensory curriculum that includes opportunities to cultivate audiation rather than a traditional curriculum that has primarily favored visual experiences; and (c) that sonic play, exploration, and discovery will help students improve their audiation and help them to become well-rounded learners who understand the value of music and music education.
ith over 2 decades of professional service as a music educator at the elementary, secondary, and postsecondary levels, I have experienced many paradigm shifts and unique perspectives within the music education community. As a subject that has suffered from budget cuts and marginalization within the curriculum itself, advocacy for music education has always remained a significant part of the music teacher’s job description. The song, however, remains the same, as continued budget cuts and marginalization in the curriculum prevail (Jorgensen, 2003; Pio, 2007). Nonetheless, I contend that the cultivation of audiation through holistic early learning will foster attainable and sustainable growth for music education. In an effort to help realize this attainable and sustainable growth, I will engage in three portals of discussion. In the first portal, I contend that creativity should be a critically important part of all education, both as a teaching and learning practice, and as a specified subject matter. In the second portal, I argue that a well-balanced approach to creativity involves a multisensory curriculum that includes opportunities to cultivate audiation rather than a traditional curriculum that has primarily favored visual experiences. In the third portal, I maintain that sonic play, exploration, and discovery will help students improve their audiation and help them to become well-rounded learners who understand the value of music and music education.

**Portal I: Creativity**

With technology advancing at an astonishingly high rate, it is not surprising that 80% of the jobs that current elementary students will have in the future do not even exist (Lautman, 2011). From an educational perspective, therefore, the importance of teaching problem-solving skills cannot be overstated. Perhaps more than any other entity, creativity plays a significant role in the problem-solving process (Isaksen & Treffinger, 1985). Educators at all levels, and in all subjects, therefore, should be seeking to implement creativity as distinct teaching and learning practice (Lin, 2011; McWilliam, 2007). In addition, creativity as a specified subject also needs to be developed and cultivated. In sum, creativity is necessary for the future of society (Csikszentmihalyi, 1996).

What is, however, the current status of creativity in education? In recent times, postsecondary institutions are starting to recognize the importance of creativity (Steele, 2013). Stanford University, for example, will require incoming students to take a course in “creative expression” as part of its new general-education curriculum (Steele, 2013). Dietrich College of Humanities and Social Sciences at Carnegie Mellon University requires students to complete a “creating” requirement, in which they produce a painting, poem, musical performance, piece of technology, or design an experiment or mathematical proof (Steele, 2013). At Bryant University, students are required to take a first-year seminar in design thinking (Steele, 2013). The most notable example, however, has been the University of Kentucky, where undergraduate students are required to take a three-credit course in creativity (Steele, 2013).

Although there are ancillary aspects of creativity within the general curriculum (such as the drawing of a picture), creativity as a distinct teaching and learning practice or as a specified subject has been, and continues to be, an elusive entity in the elementary and secondary classroom. This elusiveness can be attributed to three principal reasons. The first reason is that traditional curriculum guidelines are not designed for a holistic approach to teaching, but rather a very segmented approach to curriculum that can be broken down into small and simple skill sets (or lesson objectives), usually referred to as the atomistic curriculum, where knowledge is broken down to the atomic level (Miller, 2007). This atomistic approach also necessitates the definition of concepts and ideas, and attempting to define creativity is elusive (Ford & Harris,
1992), counter-intuitive, and defies the very essence of the word. This is perhaps one of the reasons why there is no widely used definition of creativity across the educational world (Lucas, Claxton, & Spencer, 2012). Although policy changes have fostered cross-curricular connections and a more holistic approach to education in some parts of the world, the traditional atomistic curriculum continues to assert its dominance. For example, in Early Childhood Education and Care: An Introduction, authors Sheila Nutkins, Catriona McDonald, and Mary Stephen (2013) contend that the “influence of a ‘traditional curriculum’ still prevails, in that we segregate the curriculum into specific identified elements or subjects” (p. 211).

The second reason why creativity has been an elusive entity in the elementary and secondary classroom is that any existing definitions of creativity are often debated and contested. For example, Sir Ken Robinson (2011), a heavyweight and well-known international figure on arts education, defined creativity as “the process of having original ideas that have value” (p. 151). Although I am a huge supporter of Sir Ken Robinson, I am not fully convinced of his argument. For example, consider Van Gogh’s The Starry Night, painted in 1885. This work of art was Van Gogh’s most famous painting and is considered one of the top 10 paintings of all time by art historians. Van Gogh himself did not place any value on the painting, calling it a “failure” for painting the stars too big. In fact, it took many years for the painting to have success, being sold many times before finding a permanent home in New York’s Museum of Modern Art. Although The Starry Night certainly has value today, its creator (and the public at the time) did not place any value on it, suggesting that the value placed on creativity is a very complex phenomenon that changes and fluctuates through time. Adams and Daniels (1997) stated, “Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep” (p. 324). If Van Gogh discarded The Starry Night because he thought it was a mistake, the world would have lost one of its greatest creative treasures.

The third reason why creativity in the elementary and secondary classroom has been elusive is that curriculum guidelines are too reliant on standardized evaluation practices (e.g., rubrics, testing, etc.). If it is difficult to define creativity, then it is equally as difficult to assess and evaluate creativity. Lucas et al. (2012) argued that there is no agreed upon framework for assessing the development of creativity in schools. Hence, it is easier for the school system to keep creativity evaluation to a minimum or simply avoid it altogether. Further evidence can be found in research being conducted at the University of Western Ontario. Doctoral student Catherine Dishke Hondzel (2013) discovered that teachers “had a narrow idea of what creativity looks like and how to promote it” (p. 1). Moreover, Dishke Hondzel also found that:

EQAO testing was seen by some teachers as a significant barrier to creativity . . . [saying] we can’t really be creative this year. We have to get our EQAO scores up, as there are these Ministry mandates. It’s not about being creative – there are no marks for creativity on EQAO. (p. 1)

If creativity is not purposefully and decisively taught in the school system, it is not surprising that a global creativity study conducted by Adobe (2012) found that only one in four people believe they are living up to their creative potential.

In sum, the lack of creativity in the teaching and learning process has become an accepted and, to some extent, even an institutionalized norm that is difficult to transform. Even the personality and character attributes of teachers tend to be noncreative and overly conservative, a characteristic that is reinforced by the curriculum itself (Moore, 2004). Hence, a self-sustaining cycle, where noncreative teachers produce noncreative students, has infused the very core of
education. One way to break out of this cycle, however, is through a holistic approach to teaching and learning. In fact, the very essence of creativity is part of a well-rounded holistic approach to learning, particularly during early years learning when young minds are fragile and impressionable. Pascal (2009) stated, “a holistic, comprehensive, and integrated approach to supporting the learning and care of young children and their families is necessary if we are to reap the benefits of this important investment in our future” (p. 51). Ultimately, the teaching of creativity has no limits and crosses over all sensory systems.

**Portal II: A Propensity for the Visual**

**The Larry King Faux Pas**

Given the events of September 11, 2001, George W. Bush’s Presidential State of the Union Address on the evening of September 20, 2001 was a speech that was heard by hundreds of millions of people across the United States and beyond. Immediately after the President’s speech, I tuned into *Larry King Live* on CNN (Walker, 2001). The principal guest that evening was a blind person named Michael Hingson, who escaped from World Trade Center I by walking down 78 flights of stairs with his guide dog, Roselle. Although it has been over 14 years since this broadcast, I clearly remember Larry King asking his blind guest, “Did you watch the president’s speech?”

Here is the full transcript from CNN:

KING: “Let’s swing now to our New York bureau and Michael Hingson. He’s been blind since birth. He guested with us a week ago last Friday, told a dramatic story of being guided down from the 78th floor of the World Trade Center, 78 floors down, by his dog, Roselle, who you see with him onset, and a colleague. Michael, did you watch the president’s speech?” [Larry King blushes]

MICHAEL HINGSON: [Smiles and pauses.] “I did indeed.” (Walker, 2001, p. 1)

Larry King’s faux pas was not only embarrassing and insensitive; it was also a eureka moment for me – a moment where it became obvious that our sensory perceptions are biased towards vision. For example, consider the following common expressions used on a daily basis:

- In my mind’s eye.
- Seeing is believing.
- I see what you are saying.
- I am watching TV.
- Out of sight, out of mind.
- Can’t you see the answer?
- Do you see what I mean?
- S/he saw the light!

Colavita’s (1974) study is additional evidence of society’s bias towards vision. In this study, Colavita provided participants with a random sequence of auditory, visual, and audiovisual stimuli. Precisely, participants were asked to respond to visual or auditory targets by pushing an appropriate button – one button labeled visual and the other button labeled audio. All participants had no problem responding to auditory and visual targets when they were presented individually. What Colavita discovered, however, was that most participants failed to respond to auditory targets when they were simultaneously presented with audiovisual targets, what
Colavita referred to as bimodal stimuli. Sight, therefore, blocked out sound, and the tendency to respond to sight over sound is known as “The Colavita Effect.”

Since curriculum is a reflection of society\(^1\) (Hewitt, 2006; Ross, 2000), Western education at all levels, particularly early childhood learning, is imbued with a sensory bias towards vision. For example, most early learners between three to five years of age can identify colors (Richford, 2010). This proficiency is consistent with the notion that the vast majority of elementary age learners are visual and only 12% are auditory learners (Martin, 2009, p. 281). Even my own experiences have corroborated this phenomenon, as the overwhelming majority of curriculum I have encountered is biased towards vision and does not promote multiple sensory perceptions. During their elementary years education, for instance, my two sons were continuously engaging in visual art experiences in numerous subject areas outside of the Visual Arts curriculum. They regularly drew title pages for each new unit they started in practically every subject area – even in music. In addition, they continually created graphic work in Social Studies (i.e., drawing places, coloring maps, and creating dioramas) and Language Arts (i.e., drawing characters and settings). Clement, Piotrowski, and Roberts (1998) stated, “Traditionally, art has always had a high profile in cross-curricular work . . . Because making images has been seen by teachers as a useful way for children to illustrate what has been learnt in other subjects” (p. 87). While there are possibilities and opportunities for musical/audiation experiences across the curriculum as well, they are considerably less. In the general curriculum, therefore, visual arts take precedence over music in the education of a child. Moreover, the essential role that visual arts play through the use of picture books in early literacy settings (Galda & Short, 1993) is additional evidence of this precedence.

Outside of formal curriculum guidelines, visual art opportunities continue to surpass musical ones. For example, students can help with school decorations for special events, open houses, and parent/teacher interviews. In fact, I clearly recall my son saying that his entire third grade class spent a whole week creating artwork to put on display in the classroom, because his teacher wanted the classroom to look nice for the parents. Over the course of the school year, therefore, students have significantly more opportunities to intimately know and experience the visual arts. Although there may be creative aspects associated with these visual art experiences, I contend that they are ancillary in nature (i.e., the teaching and learning of creativity is not the desired outcome) and biased towards vision. In essence, such visual bias limits potential opportunities and possibilities, which is contrary to the very spirit of creativity. That is, visual art experiences should be part of comprehensive multisensory experience that includes auditory and kinesthetic learning.\(^2\)

Since visual art experiences outweigh musical ones, music education initiatives in elementary school start from a disadvantaged position. In addition, several elementary teachers devote valuable music education minutes (which are nominal) teaching visually based curriculum (learning to read notes, musical worksheets, etc.) with the justification that this type of curriculum is a foundational requirement for musical literacy. Meanwhile, these teachers are forfeiting a wonderful opportunity to give their students auditory-based musical instruction, which should embody the overwhelming majority of musical education experiences at the elementary school level. At the end of the day, music is primarily auditory in nature.

---

\(^1\)“Reflection of society” is another example of a visually biased term.

\(^2\)Just as I am making the argument that auditory learning plays second fiddle to a curriculum that favors visual proficiencies, the same can be said of kinesthetic learning. In essence, a comprehensive and holistic approach to teaching and learning truly requires the development of all senses (sight, sound, touch, as well as smell and taste).
The phrase “musical literacy” also creates somewhat of a quandary, suggesting that a musically literate individual can fluently read music. Such a suggestion may dismiss musicians, such as The Beatles, who can competently compose and perform music without the aptitude to read musical notation. In fact, the Beatles were arguably the greatest songwriters of the last century and one of the most powerful and influential entities in popular culture. According to John Lennon, “None of us were technical musicians. None of us could read music. None of us can write it” (as cited in Roberts, 2002, p. 22). In addition, Sir Paul McCartney’s career accomplishments include 60 gold records, 100 million single record sales in the United Kingdom, 31 number one hits in the United States, and he is “the most successful musician and composer in popular music history” (Kohler, 2012, p. 24). Other notable musician/composers who could not read music include Jimi Hendrix, Eric Clapton, Angus Young, and notable blind musicians Ray Charles, Stevie Wonder, and José Feliciano. I maintain, therefore, that there is a difference between individuals who are musically literate and musically competent, much like the difference between academic intelligence and street-smart intelligence. In sum, I contend that the cultivation of audiation through a multisensory curriculum is part of a well-balanced approach to creativity as both a distinct teaching and learning practice and as a specified subject. This is very different from traditional curriculum practices that have primarily favored visual experiences.

**Portal III: Audiation**

Teaching and learning audiation is an important and valuable component of a “holistic, comprehensive, and integrated approach” (Pascal, 2009, p. 51), particularly in an early-years environment where learners benefit from sonic play, exploration, and discovery. The term “audiation” was coined in 1975 at the University of South Carolina by music education researcher Edwin Gordon. At its most fundamental level, audiation is about hearing and comprehending music within the mind, similar to the concept of inner hearing. Hence, audiation is to sound in the same manner that imagination is to images. Audiation is the foundation of musicianship and can occur when one listens to music, performs by ear, improvises, and/or composes, among other things. The following excerpt on audiation is from The Gordon Institute for Music Learning (2015) website:

> Audiation is the musical equivalent of thinking in language. When we listen to someone speak we must retain in memory their vocal sounds long enough to recognize and give meaning to the words the sounds represent. Likewise, when listening to music we are at any given moment organizing in audiation sounds that were recently heard. We also predict, based on our familiarity with the tonal and rhythmic conventions of the music being heard, what will come next. Audiation, then, is a multistage process. (Para. 2)

A common, everyday example of audiation could include a song or jingle from a radio/television commercial that sticks in your head all day long (even when you hate the melody). A distinguished and renowned example of audiation is the entire 9th Symphony (Ode to Joy), which was written by Beethoven while completely deaf. Although Beethoven was musically literate before he went deaf, one does not have to know how to read music to have a highly developed level of audiation, such as the previously discussed example of The Beatles.
Which is more difficult for the average person, imagination or audiation? It is easier for humans (particularly in the West) to use their imagination because society is visually biased, as the previous stated arguments by Colavita (1974), Richford (2010), and Martin (2009) imply. Since society has not cultivated a mainstream culture of audiation, it is very difficult for most people to audiate. For example, the average person is not trained to sing a piece of music completely in their mind without making any sound (this is the concept of inner hearing which is further explained and developed below). It is critical, therefore, to foster a culture of audiation with children from a very early age in an effort to develop long-term success and viability. As a starting point on the long road of developing long-term success and viability, I offer the following two practical examples that all early learning educators can easily incorporate in their classrooms: (a) inner hearing; and (b) playing with timbre.

**Inner Hearing**

Just like we can see images in our mind, we can hear sounds and music in our mind. This innate ability can be improved through practice and daily exercises. A very simple and effective pedagogic technique for early learning involves the use of a popular melody (such as Happy Birthday) and a hand puppet. The instructor should approach this exercise in three stages. In the first stage, the instructor would choose someone who has had a recent birthday (ideally a student in the class), and have the entire class sing all four lines of Happy Birthday to this person.

```
Happy birthday to you
Happy birthday to you
Happy birthday dear Johnny
Happy birthday to you
```

When the students are singing, the instructor wears a hand puppet. Ideally, the puppet would have a mouth that can open and close, and the instructor would manipulate the puppet’s mouth to imitate singing. This would provide a visual cue for the students to sing along.

In the second stage, everything is the same as in the first stage except for the third line of the song (happy birthday dear Johnny), which is sung with a whisper voice. During this third line, the instructor moves the puppet’s mouth at about 10% capacity as a visual cue for whispering.

In the final stage, everything is identical to the second stage, except that whisper voices now turn to silent voices. Hence, the instructor would not move the hand puppet’s mouth as a visual cue for inner singing. During this stage, students may still make necessary mouth movements for the third line, as long as no sound is being produced. With repeated practice, mouth movements will eventually diminish and even disappear completely.

Here is another variation I have used with early learners (see below) that has worked well. In this example, the normal text would be sung and the italicized and underlined text would be silently audiated (sung without making any sound or mouth gestures). The hand puppet would still be used as a visual cue for singing and silent audiation. In the absence of a puppet, I have also used my index finger against my lips – the universal sign for not using your voice, which early learners readily understand.
Happy birthday to you
Happy birthday to you
Happy birthday dear Johnny
Happy birthday to you

With a creative thought process, the instructor ultimately has the ability to use a number of possible songs and variations.

**Playing with Timbre**

Timbre is an important element of music that recognizes the character of musical sound, such as the difference between the sound of a violin or piano. Much like listening is a critical component in the learning of language and how to speak, listening to music is also a critical component in the learning of music and cultivating audiation. In today’s digital world, most music listening is ancillary. That is, we hear music as part of something else (e.g., while we are driving, surfing online, playing with apps on mobile devices, engaged in television, cleaning, working, and exercising). Listening for purpose, however, is an event that rarely transpires for many people throughout the course of a day. Hence, it is critically important to teach early learners that listening to music for the sake of the music, has value. Teachers of early learners can easily incorporate activities based around timbre. For starters, I like to have early learners walk around the classroom tapping or touching different objects in an attempt to produce sound. This type of sonic play allows children to discover that common, everyday objects, such as desks, walls, and windows, all have a sonic and timbral quality. Conversely, the teacher can easily set up a variety of classroom stations with different objects for students to explore and discover, including basic musical instruments. From more of a listening perspective, the Internet provides a wealth of resources on timbre. For example, having early learners listen to *Twinkle Twinkle Little Star* played by a violin and then played by a piano is a wonderful activity. Ultimately, these aforementioned examples of musical play, exploration, and discovery allow for an easy discussion on what makes objects/instruments sound different. Such a discussion helps students start to build a sophisticated vocabulary of adjectives for the sonic world, which, in turn, provides a solid foundation for improving and cultivating audiation.

**Alternate Pedagogies for Teaching Music To Children**

There are music education pedagogies (Orff, Kodály, Dalcroze, Suzuki, and Yamaha) that devote a substantial quantity of time on audiation for early learners. Unfortunately, these programs tend to be delivered by private establishments that necessitate substantial financial commitment. Fair and equitable access to these programs is a major obstacle for many students. Some of these aforementioned programs, especially Orff and Kodály, are, indeed, offered in public schools across Canada. Access to these publicly funded programs, however, is also a major obstacle. For starters, only half of the public school districts in Canada hire music specialists, and these specialists are not necessarily trained in Orff or Kodály. Moreover, of the school districts that employ music specialists, many of them commence at the junior division (Grade 4 and up), which is far too late.

---

3 Violin Source: [https://www.youtube.com/watch?v=dYfMQF0-pHU](https://www.youtube.com/watch?v=dYfMQF0-pHU) from 59 seconds to 1:37; Piano Source: [https://www.youtube.com/watch?v=GXX2aTvI3w8](https://www.youtube.com/watch?v=GXX2aTvI3w8)
Conclusion

The principal argument that I have made in this paper is that the cultivation of audiation through holistic early learning will foster attainable and sustainable growth for music education. The cultivation of audiation is rooted in three principal arguments, namely: (a) that creativity should be a critically important part of all education, both as a teaching and learning process and as a specified subject; (b) that a well-balanced approach to creativity involves a multisensory curriculum that includes opportunities to cultivate audiation rather than a traditional curriculum that has primarily favored visual experiences; and (c) that sonic play, exploration, and discovery will help early learners improve their audiation and help them to become well-rounded learners who understand the value of music and music education. In sum, I challenge all early learning educators to adopt a holistic approach so all students have the opportunity to learn in a vibrant and robust multisensory classroom where audiation plays a fair and equitable role in the teaching and learning process.

References


John L. Vitale holds a doctoral degree in Curriculum Studies from the Ontario Institute for Studies in Education at the University of Toronto (2002). He is currently an Associate Professor at Nipissing University where he teaches Music Education and Curriculum Methods at the undergraduate level, and Research Methods at the graduate level. Prior to his appointment at Nipissing, John taught music for over a decade in a number of Ontario secondary schools. During his tenure with the Toronto District School Board, he also served as the Department Head of Arts at Victoria Park Collegiate Institute. Over the years, John has contributed to the field of music education through numerous national and international publications and conference presentations. As a professional bass player, John has over 1,100 performances to his credit, including numerous festivals, public concerts, and television appearances with Juno award winner/platinum-selling artist Robert Michaels and two-time Juno award winner Liberty Silver. In addition, John also has many recording and compositional credits, including the score to multi-award-winning children’s animated film Attic-in-the-Blue (first place winner at the Chicago International Children’s Film Festival). John’s research interests include self-directed learning, alternative pedagogy, film music, teacher performers, and creative scholarship.